ABSTRACT OF THE DISCLOSURE

In a gateway apparatus which interconnects a first network and a second network, an encoding processing unit receives voice data from the first network and generates encoded voice data from the received voice data. A packet processing unit creates packets of the encoded voice data and transmits the packets to the second network. A network-state estimation unit determines network-state information of the second network. A determination unit controls at least one of the encoding of the encoding processing unit and the packetizing of the packet processing unit based on the network-state information determined by the network-state estimation unit.